



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,338	03/29/2004	Mahendra Madhukar Patil	140320-1/YOD GERD:0106	2694
7590	04/25/2006		EXAMINER	
Patrick S. Yoder FLETCHER YODER P.O. Box 692289 Houston, TX 77269-2289			SUERETH, SARAH ELIZABETH	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/812,338	PATIL ET AL.
	Examiner Sarah Suereth	Art Unit 3749

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 March 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-43 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-43 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/29/04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: renumbered claims.

## DETAILED ACTION

### *Claim Objections*

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires claims to be numbered consecutively beginning with the number next following the highest numbered claims previously presented.

Misnumbered claim 25 has been renumbered claim 26, and the renumbering continues through claims 26-43. Attached to this office action is a copy of the renumbered claims.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-7, 14-20, 22-28 and 35-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel 6920874 in view of Morton 6349716.

Siegel discloses the claimed invention: a photo ionization smoke detector (30) for detecting smoke and combustion products (col. 1, line 25) above an active zone of a cooktop (col. 3, line 1), an air moving device (20), control circuitry (35) coupled to the sensor and the air moving device (Figure 1), for regulating operation of the air moving device (col. 5, lines 29-31).

Regarding claims 4 and 18, Siegel discloses humidity (33) and temperature (32) sensors.

Regarding claims 5 and 20, the controller (36) has several predefined programs activated by the user (col. 4, lines 53-56).

Regarding claim 6, the controller is configured to respond to the temperature and humidity sensors (col. 5, lines 29-31).

Regarding claims 7 and 19, the controller (36) sends and receives signals (col. 5, lines 12-14), and is read as capable of receiving at least one of the claimed signals.

Regarding claims 22 and 28, Siegel discloses that his controller is configurable based upon the altitude or climate the device (col. 6, lines 34,35), which is read as meeting the claimed limitation "configurable based on installation location".

Regarding claim 35, the Siegel apparatus has the claimed structure, and is capable of reducing acoustic noise by varying the fan speed (col. 5, line 31).

Regarding claim 41, Figure 4 shows operating set point references.

Regarding claim 42, Siegel shows time stamped signals used to measure the timing of each cycle (col. 5, line 14), and are read as a set of timing references.

Regarding the table of claim 43, see Siegel Tables 1-5.

Art Unit: 3749

Siegel does not show an air flow direction device connected to the controller.

Morton shows an air flow direction device (34) connected to and controlled by a controller (62), triggered by a sensor (col. 3, lines 47-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Siegel apparatus by adding the adjustable damper of Morton in order to prevent fires (col. 3, lines 50-53).

The method claims 14-20 and 35-43 are rejected because the prior art apparatus discussed above performs the claimed method steps.

5. Claims 8, 9, 11-13, 21, 29, 30, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel in view of Morton as discussed above, and further in view of Wang et al 5236595.

As discussed above, the Siegel in view of Morton combination does not include a grease filter.

Wang et al shows a filter (col. 6, lines 11-24) for the purpose of purifying air (col. 6, line 9). The filter is taught to remove grease (col. 6, line 8), odor (col. 6, line 9), and bacteria (col. 6, line 8). The air purification device also includes UV air purification (col. 6, lines 28, 29), which is read as an active device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Siegel in view of Morton apparatus with the Wang air purification device, in order to remove undesirable constituents (col. 5, lines 16, 17).

Claim 21 is rejected because the prior art apparatus discussed above performs the claimed method step.

6. Claims 10 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel in view of Morton in view of Wang et al as discussed above, and further in view of Jensen 6521859.

7. As discussed above, Wang et al discloses a UV air purification device, but not a corona discharge device.

8. Jensen teaches that both UV air purification devices and corona discharge devices work to irradiate air (col. 1, lines 66, 67).

9. The courts have held that substituting known equivalents for the same purpose is not a patentable modification (*In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982), also MPEP 2144.06).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Siegel/Morton/Wang apparatus with the Jensen corona discharge device in order to produce high quantities of ozone at a low cost (Jensen col. 2, lines 11-15).

Claim 31 is rejected because the prior art apparatus discussed above performs the claimed method step.

***Conclusion***

The prior art made of record on the attached form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this

Art Unit: 3749

communication or earlier communications from the examiner should be directed to Sarah Suereth whose telephone number is (571) 272-9061. The examiner can normally be reached on Monday to Thursday 7:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Sarah Suereth*  
Sarah Suereth  
Examiner  
Art Unit 3749

EHUD GARTENBERG  
SUPERVISORY PATENT EXAMINER

*Ehud Gartenberg*